

OPEN SPACE- FARMER CROP/RESTORATION PLAN 2023



Location: Candelaria Nature Preserve, North Tract

Farmer: Ciudad SWCD

Date: 2/15/2023

Will you be requesting approval for use of pesticides? ___NO___

Please log the following information prior to the growing season with an estimate of what you will be doing.

Field Number or other location	Farmer/Company name	Field Prep estimate- Date and Method	Method of Activity: (no till drill, spread with broadcast spreader)	Other Activities – Date, type
1A	CSWCD/Rio Grande Return	Jan – May: Sheet mulch and installation of woody features, irrigation into moist soil unit north side of field Ongoing: Invasive species control with hand labor within mulched area, mowing outside mulched area	Auger/plant dormant Salix spp. in Mini-damp soil unit Broadcast dryland native grass/forb mix around large woody features Additional seeding planting N/A in 2023 Auger/plant containerized material Chilopsis and Solidago along southern understory/plateau. Transplant plugs of Disticlis spicata and Sporobolus spp. In Mini-damp soil unit	Pollinator-forage support planting and seeding to begin in late 2023 and early 2024 Spread and secure Cottonwood leaves as mulch and to encourage soil ecology for infiltration
1B	CSWCD/Rio Grande Return	N/A – management of existing planted basins;	Alkali sacaton and sunflower re-seeding via hand broadcast and light wood	Installation of perches in center of field, additional

		Irrigation as needed to around 1x per month Mowing/hand labor to reduce abundance of invasive species	chip layer in center of field, hand labor with machinery support for moving materials	native planting will occur late summer – fall 2023
1C	CSWCD/Rio Grande Return	No field prep or irrigation; Conservation fallow due to weed pressure in 2023	Conservation fallow	Design and restoration planning through 2023
1E	CSWCD/Rio Grande Return	No soil prep. needed, Spring -Fall spot mowing and reduction in invasive species, hand removal on W. ½ for kochia, tumbleweed seedlings	Seed diversity increase via hand seeding within standing crop; irrigate as required. Management of invasive species ongoing throughout season	Expand/enhance hedgerow habitat with native species
1D	CSWCD/Rio Grande Return	No soil prep. needed, Spring -Fall spot mowing and reduction in invasive species, hand removal on west ½ for kochia, tumbleweed seedlings	Seed diversity increase via hand seeding within standing crop, irrigate as required. Management of invasive species ongoing throughout season	Expand/enhance hedgerow habitat with native species
2A	CSWCD/Rio Grande Return	No soil prep. needed	Management of invasive species ongoing	Design and restoration planning through 2023
2B	CSWCD/Rio Grande Return	No soil prep. Needed; Soil assessments to aid design	Management of invasive species ongoing	Design and restoration planning through 2023
2C	CSWCD/Rio Grande Return	No soil prep. needed, Soil assessments to aid design	Management of invasive species ongoing	Design and restoration planning through 2023
2D	CSWCD/Rio Grande Return	Irrigate, maintain existing cover crop (barley, wheat and oats) and reseed	Drill seed with cover crop mix (red clover, oats, buckwheat, cowpeas)	Monitor for added seed

3A	CSWCD/Rio Grande Return	No soil prep. needed	Management of invasive species ongoing	Design and restoration planning through 2023
3B	CSWCD/Rio Grande Return	Minimal soil prep, use of seed drill to introduce native, drought-tolerant seed mix (teff, millet, grama grass-dominant)	Spread straw, crimp into soil simultaneous to seed mix in spring, irrigate as needed Monitor and manage invasive species	Expand and enhance hedgerow along edges (west, north)
4A East ½	CSWCD/Rio Grande Return	No field-wide soil prep needed	Late summer/fall 2023 – native shrubs plant out	Maintain reduced invasive species, mowing/raking
4A West ½	CSWCD/Rio Grande Return	Level/Disc and plant May/June Irrigate	Drill seed and irrigate to germination/ maintain. Dryland mix – (teff, millet, blue gramma, alkali sacaton, sand dropseed, sunflower)	Raking/mowing as needed to reduce invasive species cover
4B	CSWCD/Rio Grande Return	No soil prep. needed	Hand broadcast as needed to increase diversity Manage invasive species as needed by hand, mow	Remove elm seedlings along south and west of field
4C	CSWCD/Rio Grande Return	No soil prep. needed	Hand broadcast as needed to increase diversity Manage invasive species as needed by hand, mow	Expand and enhance hedgerow along edge (south)
4D	CSWCD/Rio Grande Return	Irrigate and maintain with reseedling, no soil disturbance or soil prep. required	Broadcast seed, sunflowers with cover crop mix (red clover, oats, buckwheat, cowpeas)	Mowing of invasive species, hand labor to pull annuals
Hedgerows	CSWCD/Rio Grande Return	Auguring as needed for planting prep., install	Plant native species, mulch and irrigation as needed	Wood chips for mulch, weed suppression

		temporary drip irrigation systems		
WWH – nursery	CSWCD/Rio Grande Return	Ongoing: management of space with partners	Install additional nursery tables, irrigation, planting up seedlings to tall pots	N/A

Crop Plan Narrative:

Management and restoration activities during the 2023 season at CNP North Tract are focused on maintenance of established mixed native and agronomic ground cover in wildlife farming fields, aftercare for native salt-shrubland species planted in fields 1B and along understory hedgerow enhancement. Simultaneous management measures to decrease invasive and exotic species coverage and abundance on the North Tract will continue improvement gained from prior management years (2021-22) through monitoring plant populations, targeted mowing and hand pulling, mulch applications and shallow tillage as necessary.

Restoration work will progress in 2023 towards enhancement of plantings in select fields and hedgerows towards greater species diversity and abundance while working diligently to adapt planting plans and designs to address ongoing aridification and surface water shortages.

This crop plan addresses the objective of developing a western boundary managed in the short term for habitat continuity and connection, soil cover and open field conditions benefitting migratory birds. This approach allows for increase in structural diversity and ability for soils to rebound from agricultural disturbance prior to implementing restoration activities in subsequent years.

SIGNATURE:



Sean Ludden, Ciudad SWCD Conservation Programs Manager